

**REMARKS****Interview Summary**

Applicant's Agent, Jesse Fecker, thanks the Examiner for the telephonic interview of July 6, 2005, in which she clarified that the Office Action mailed February 2, 2005 superceded the Office Action mailed January 10, 2005.

Applicant and Applicant's representatives would like to thank the Examiner for the courtesies extended during the in-person interview conducted on July 12, 2005. During the interview, the rejections and art of record were discussed. Applicant explained how the claimed compounds differ from Pacifici, because while certain bonds in the compound disclosed by Pacifici may be cleaved by photolysis, the bond corresponding to the bond between M and C=O in the recited structures cannot be cleaved by light of 365 nm wavelength.

It was agreed that the claims would be amended to explicitly show the linkage between a monomeric building block, solid surface or gel and a photocleavable protecting group, in order to further clarify which bond is cleaved by photolysis. The Examiner indicated that, subject to further search, the amended claims would be allowable over the art of record.

**Claim Amendments**

Independent Claims 1, 5, 14, 30, 32, 34 and 36-38 have been amended to explicitly show how "M", the monomeric building block, solid surface or gel is attached to each photocleavable protecting group. Accordingly, the values "Y" and "Y<sub>1</sub>" are no longer recited by the claims (including Claims 7, 11, 12, 18 and 19) and are instead incorporated into the new structures. References to Y or Y<sub>1</sub> are now made to directly to groups represented by Y or Y<sub>1</sub>.

Claims 1, 5, 14, 30, 32, 34 and 36-38 have also been amended to recite that the bond between M and C=O (of the protecting group) is capable of being cleaved by photolysis using light having a wavelength of about 365 nm. Support for the amendments can be found, for example, at page 14, lines 18-24.

No new matter has been added.

Rejection of Claims 1-23 and 30-38 Under 35 U.S.C. § 103(a)

Claim 1-23 and 30-38 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 5,412,087 (“the ’087 Patent”) in view of WO 98/39348. The Examiner states that the evidence provided by the Declaration of Glenn H. McGall, Ph.D. Under 37 C.F.R. 1.132 (hereinafter “the Declaration”) is not commensurate in scope with the claimed invention.

The Examiner provides three reasons as to why the evidence provided by the Declaration is allegedly not commensurate in scope with the claimed invention. First, the Examiner states that the instant claims are not limited to photocleavable groups. Second, the Examiner states that the instant claims are not limited to where the groups are removable with 365 nm light. Third, the Examiner states that the instant claims are not limited to methods of DNA synthesis.

It is believed that the first two reasons have been addressed by the claim amendments. Each independent claim has been amended to recite that the bond between M and C=O, which is the moiety of the photocleavable protecting group attached to M, is capable of being cleaved by photolysis using light having a wavelength of about 365 nm. Thus, the claims, as amended, are commensurate in scope with the evidence provided in the Declaration.

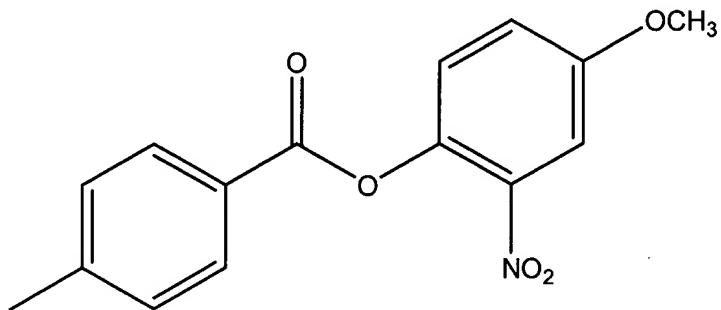
The third issue raised by the Examiner with respect to methods of DNA synthesis is unclear to Applicant’s Agent. Certain claimed compounds (e.g., nucleosides attached to a protecting group, as in claim 2) are particularly useful in DNA synthesis because of the properties of the protective group. The patentability of the claimed compounds is not predicated solely upon their suitability for DNA synthesis, and Applicant notes that the claimed invention also encompasses, for example, protected amino acids for peptide synthesis. In general, the compounds of the invention are particularly useful in other applications where light of less than 365 nm is damaging.

Applicant submits that the claims, as amended, are commensurate in scope with the evidence of non-obviousness provided by the Declaration. The Declaration stated that it is unexpected that a protecting group can be cleaved from a reactive site with 365 nm light. The amended claims explicitly recite that the protecting groups are cleavable from a compound with 365 nm light. Thus, the claimed compounds have unexpected properties and methods employing

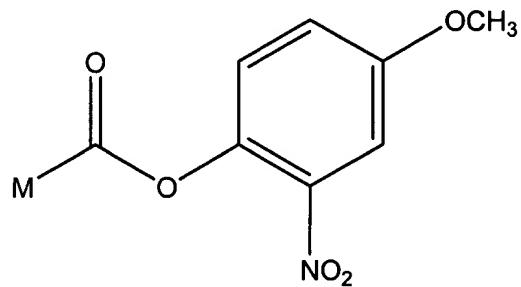
these compounds are non-obvious as well. Accordingly, the claimed compounds and methods are not obvious over the art of record. Reconsideration and withdrawal of the rejection are requested.

Rejection of Claim 30 Under 35 U.S.C. § 102(b)

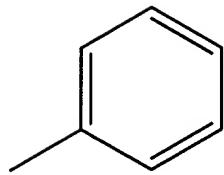
Claim 30 is rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Pacifici (U.S. Patent No. 3,879,356). The Examiner states that Pacifici discloses the following compound:



The compound identified by the Examiner does not anticipate claim 30. Claim 30 is directed to, *inter alia*, the following compound:



where M a monomeric building block having a reactive site attached to the carbonyl moiety indicated in the formula, a solid surface having a reactive site attached to the carbonyl moiety indicated in the formula or a gel having a reactive site attached to the carbonyl moiety indicated in the formula. The portion of the compound disclosed by Pacifici that corresponds to M is toluene, as shown below:



As explained by Applicant during the interview, the bond between toluene (a tolyl group) and the carbonyl group, a carbon-carbon bond, cannot be cleaved by light of 365 nm wavelength. Such light does not have sufficient energy to effect cleavage of a carbon-carbon bond. Thus, the compound disclosed by Pacifici does not anticipate the compounds recited in claim 30. Reconsideration and withdrawal of the rejection are respectfully requested.

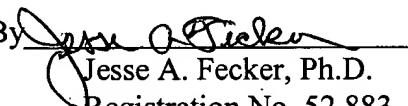
**CONCLUSION**

In view of the above amendments and remarks, Applicant believes the pending application is in condition for allowance.

Please charge any fees which may be due to our Deposit Account No. 18-1945, from which the undersigned is authorized to draw, under Order No. AFMX-P01-036.

Dated: July 29, 2005

Respectfully submitted,

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